

*Curriculum vitae*

**PLATEK, STANLEY FRANK**

**Educational Background**

1979-1988 University of Cincinnati; College of Medicine, major: Industrial Hygiene; M.S. 1988

1970-1974 Murray State University; major: Biology ( & pre-veterinary medicine); B.S. 1974  
minor: Chemistry and Agriculture

**Professional Experience**

**2015 – PRESENT** Invited expert member of the NIST sponsored Organization of Scientific Area Committees (OSAC) serving on the Gunshot Residue Sub-Committee and Task Group

**2005 - PRESENT** Faculty Lecturer (Part-Time) Lehigh Microscopy School, Lehigh University, Bethlehem , PA

2002 – (Detail 1/26/02-2/27/02) Acting Deputy Director, FDA -ORO Division of Emergency Operations, Rockville, MD

2002-2009 Team Leader, Microscopy/Microanalysis Group FDA, Forensic Chemistry Center, Cincinnati, OH

**2001-PRESENT** GS-14 Biologist, FDA, Forensic Chemistry Center, Cincinnati, OH

1997-2001 GS-13 Biologist, FDA, Forensic Chemistry Center, Cincinnati, OH

1991-1997 GS-12 Research Biologist, US Food and Drug Administration (FDA),  
Forensic Chemistry Center, Cincinnati, OH

1986-1991 GS-11 Research Biologist, CDC, NIOSH, Cincinnati, OH

1984-1986 GS-9 Research Biologist, CDC, NIOSH, Cincinnati, OH

**1982 – PRESENT** Adjunct Faculty (Part-Time) Department of Biological Sciences,  
Northern Kentucky University, Highland Heights, KY

1977-1984 GS-7 Biologist, CDC, NIOSH, Cincinnati, OH

1977-1977 GS-5, Biologist, CDC, NIOSH, Cincinnati, OH

1976-1977 GS-5 Biological Laboratory Technician, US Centers for Disease Control (CDC),  
National Institute for Occupational Safety and Health (NIOSH), Cincinnati, OH

1976- 1981 Stream Biology / Herpetology Instructor (Part Time) / Cincinnati Museum of Natural History,  
Edge of Appalachia Preserve, West Union, OH

1974-1976 Naturalist/ Shop Manager, Cincinnati Museum of Natural History, Cincinnati, OH

PLATEK, S. FRANK

**Training (selected)**

2016 - Nanomaterial Microscopy & Microanalysis: Tools and Preparation, M&M 2016, 1 Day Short Course, Columbus, OH  
 2014 - Oxford Aztec - Energy Dispersive X-Ray Analysis, Oxford Scientific, Pleasanton, CA (1 week)  
 2010 - Imaging and Analysis with Variable Pressure or Environmental SEM, M&M 2010, Portland, OR (1 day)  
 2010 - Instrument Training – Bruker XRF  
 2009 - Radiation Safety and Field Operation of portable XRF Spectrum Analyzers  
 2006 - Toolmark Identification Training Course, Forensic Science Institute of Ohio, DOJ, Bureau of Alcohol, Tobacco, Firearms and Explosives, Cincinnati, Ohio, (1 week)  
 2005 - Lehigh Microscopy School, Lehigh University, Bethlehem, Pennsylvania (1 week)  
 2005 - FAME Leadership Skills Development I, Shepherdstown, WV (1 week)  
 2004 - Introduction to Toolmark Examinations, Indiana State Police Crime Laboratory, Indianapolis, IN (2 weeks)  
 2002 – FEI Quanta 600 Training Course, Peabody, MA (4 day)  
 2000 – Law and Evidence Development, Food and Drug Administration, Columbia, MD (2 weeks)  
 1998 - Expect Witness Training, Food and Drug Administration / Office of Criminal Investigations, Cincinnati, OH (3 day)  
 1998 - Forensic Geology, Forensic Science Institute of Ohio, Columbus Police Crime Lab, Columbus, OH (1 day)  
 1997 - Dispersive Staining Workshop, McCrone Institute, Chicago, IL (1 Day)  
 1996 - FDA Law and Testimony Training (Overview), FDA CIN-DO and FCC Organized Training, Cincinnati, OH (12 hr)  
 1996 - Digital Image Acquisition, Handling, Processing and Archiving, SCANNING'96 SC, Monterey, CA (1day)  
 1995 - Scanning Electron Microscopy and Microelectronics, SCANNING'95 Short Course, Monterey, CA (1 day)  
 1992 - LEICA Stereoscan Training Course, Leica Inc., Deerfield, IL (3 days)  
 1992 - Oxford Advanced Energy Dispersive X-Ray Analysis, Oxford Scientific, Foster City, CA (1 week)  
 1991 - Computer-Controlled Image Analysis, Electron Microscopy Society of America, Short Course, San Jose, CA (1 day)  
 1981 - LeMont B-10 Image Analyzer Training, LeMont Scientific, State College, PA (1 week)  
 1980 - Scanning Electron Microscopy and Microanalysis for the Biological Sciences, SUNY, New Paltz, NY (1 week)  
 1979 - Identification of Asbestos (by Polarized Light Microscopy), McCrone Research Institute, Cincinnati, OH (1 week)

**Additional Training (selected)**

**US Government Training Classes (through NIOSH, CDC and/or FDA)**

Project Officer Training	• Advanced Project Officer Training
Scientific Report Writing	• Sexual Harassment - Non-Supervisory Personnel
Stress Management	• LOTUS 1-2-3
MS Word	• MS Outlook
MS Access	• WordPerfect
Advanced WordPerfect	• Basic Computer Language
EASE General Employee Training	• ISSO Training
Ethics Training	• On-Line Information System Security Training
FACTS Training	• Fire Extinguisher Training
QA & FCC Databases	• FCC Sample Sealing Procedures
Security Training	• Blood Borne Pathogens – Exposure Training
Sample Sealing, Worksheets and Court Testimony	• Back-To-Basics
Worksheet Training	• Chemical Hygiene / Hazard Communication
WORD '97	• Expert Witness Workshop
Cardiopulmonary Resuscitation (Am. Red Cross)	• Chemical Hygiene Training
Investment in Excellence (Through FDA-FCC)	• Defensive Driving Techniques
Ethics Training (FDA) - annually	• Scanning Electron Microscopy for Biological Sciences
Emergency Preparation / Hazardous Chemical / Bio-Hazard Spill	• Uncertainty Estimation A033 •
FDA Security Awareness Course	• Chemical Hygiene Plan • FDA Agency-Wide Records management •
ASCLD Guiding Principles	• Instrumental Training-Printing Examinations per SOP# T049
HHS Travel Card Training	• Privacy Awareness Training
Auditing	• Digital Image Capturing of Category 1 Images
ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Labs and Forensic Scientists	
Open Lab ECM Training	• The No Fear Act 2012

Gifts Between Employees • Hatch Act Political Activity • Official Duties and Outside Activities  
FCC Hazardous Waste, Biosafety Plan and Select Agents • Shelter in Place  
COOP Training • Expert Witness Workshop • Bloodborne Pathogens and Exposure Control  
Computer Security Awareness • Performance Management Appraisal Program for Employees •  
FDA Information Security Awareness Course • Food and Drug Law Course  
FDA Evidence Development Course •

**Honors and Awards (selected)**

2018 - **Group Recognition Award** (member of CD5 prototype evaluation team)  
2017 - **Group Recognition Award**  
2016 - **Group Recognition Award** (member of Silver Medical Products Analytical Group)  
2016 - **Group Recognition Award** (member of Anti-Malarial Counterfeit FPIE Team)  
2016 – Todd M. Bozicevich, ORD Education Collaboration of the Year.  
2015 – Elected into the **2015 Class of Fellows of the Microscopy Society of America**  
2013 - **Group Recognition Award** (member of the Counterfeit & Unapproved Oncology Drug Analytical Work Group)  
2012 - **FDA - Special Act Award** (XRF Instrument Issues – Detection and Communication)  
2012 - **Group Recognition Award** (member of Measles Vaccine – International Forensic Assistance Team)  
2011 - **Group Recognition Award** (member of Pharmaceutical Counterfeit Detection (CD3) Device Group)  
2010 - **Group Recognition Award** (member of Suspect counterfeit/Unapproved Flu Medicines Rapid Response Group)  
2010 - **Group Recognition Award** (member of Dialysis Center Bleach Tampering Analytical Group)  
2009 - **Group Recognition Award** (member of Controlled Substances Hospital Tampering Analytical Group)  
2009 - **Group Recognition Award** (member of Contaminated Heparin Analytical Group)  
2009 - **Group Recognition Award** (member of Illegal Imported Prescription Drug Forensic Analysis Group)  
2008 - **Group Recognition Award** (member of Pet Food and Animal Feed Contamination Response Group)  
2008 - **Group Recognition Award** (member of Counterfeit Animal Pharmaceutical Analytical Group)  
2006 - **Group Recognition Award** (member of Post-Filtration Hemolysis Response Group)  
2005 - **FDA Level 1 Analyst Certification**  
2005 - **Group Recognition Award** (member of Counterfeit Flu Vaccine Analysis Group)  
2003 - **Group Recognition Award** (member of Counter-Terrorism Analytical Methods Work Group)  
2003- Foundation for Advances in Medicine and Science - Achievement Award for Distinguished Leadership  
2002 - **FDA** – Special efforts as a Team Leader and contribution to the FCC Safety Committee.  
2001 - **FDA** - **Award** for collaboration with the Indiana State Crime Laboratory in serial killer investigation and published method on pharmaceutical vial tamperings  
2001 - **FDA** - **ORA Scientific Achievement Award**, Excellence in Laboratory Science  
2000 - **FDA** - **Special Act Award**  
2000 – **SCANNING – The Journal of Scanning Microscopies Selection** of Research/Manuscript image(s) for the cover image for the March/April 2001 issue of International Journal, **SCANNING**.  
1999 - **FDA** - **Special Act Award**  
1998 - **FDA** - **Special Act Award**  
1997 - **FDA** - **Special Act Award**  
1996 - **FDA** - **Group Recognition Award** (determination of clenbuterol residue in tissues)  
1996 - **FDA** - **District Certificate of Achievement** - (for contributions in the planning, development and coordination of the District/Center Conference)  
1996 - **FDA** - **Performance Award**  
1996 - **FDA** - **Commendable Service Award Nominee** (analysis of counterfeit/diverted infant formula)  
1995 - **FDA** - **Performance Award**  
1995 - **FDA** - **Special Act Award**  
1995 - **FDA** - **Commendable Service Award** (forensic analysis and trial testimony contributing to the successful conviction of a lawyer following a false report of tampering claim)  
1994 - **FDA** - **Federal Employee of the Year** Nominee (Scientist)  
1993 - **FDA** - **Special Act Award**  
1993 - **FDA** - **Performance Award**  
1992 - **NIOSH - Alice B. Hamilton Award** Nominee, CDC.  
Research paper, "Lung Particulate Burdens of Subjects from the Cincinnati, Ohio Urban Area" (from NIOSH Research) 1993 - **HHS - Employee of the Month Award - Secretary of DHHS SHALALA Award** (lead analyst and research related to the forensic analysis of the 1993 Pepsi "Tamperings")

**Honors and Awards (selected - continued)**

1992 - **FDA - Performance Award**

1991 - **FDA - Performance Award**

1989 - **NIOSH - Alice B. Hamilton Award** Nominee, CDC.

Research paper, "Fibrogenicity and Carcinogenic Potentials of Smelter Slags Used as Abrasive Blasting Substitutes" (from NIOSH Research)

1985 - **Outstanding Young Men in America Award**

1984 - **NIOSH Federal Employee of the Year** Nominee

1981 - **Outstanding Contribution**, American Foundryman's Society, for research paper "Physical and Chemical Analyses of Foundry Sands".

1974 - **Who's Who in American Colleges and Universities Award**

**Special Invitations (Since joining FDA-FCC in 1991)**

Invited course instructor and workshop designer for Scanning Electron Microscopy and Forensic Analyses Workshop, Annual meeting of the Midwestern Association of Forensic Scientists, September, 2017, Cincinnati, OH

Invited to serve as an expert member of the NIST sponsored Organization of Scientific Area Committees on the Gunshot Residue Sub-committee, November, 2014 (2 year committee member)

Participating in the OSAC meeting in Phoenix, AZ, VA August 1-5, 2016

Participating in the OSAC meeting in Leesburg, VA January 26-29, 2016

Participating in the OSAC meeting in Norman, OK, January 12-15, 2015

Invited Plenary Speaker - SPIE – Defense, Security and Sensing 2011, Orlando, FL, May 24, 2011  
Scanning Microscopies "Scanning Microscopies in Forensic Science: Classic and New Applications"

OPM/ORA Occupational Analysis Succession Planning Workgroup, Gaithersburg, MD, March 9-10, 2009

National Tour Speaker (*invited*) Microscopy Society of America (MSA), 2007- 2011

Invited Plenary Speaker - Association of Analytical Chemists (AOAC) International – Pacific Northwest Section Forensic Analysis Workshop, June 24, 2004

Invited attendee and speaker: National Nanotechnology Initiative (NNI) Workshop on Instrumentation and Metrology for Nanotechnology. NIST, Gaithersburg, MD, January 27-29, 2004.

Invited Plenary Speaker - 2003 FDA SCIENCE FORUM, Washington, D.C., April 24-25, 2003  
"Forensic Investigations Related to Food and Pharmaceutical Tampering and Counterfeiting"

Co-Developer and Instructor (*invited*) – FBI/FDA Forensic Training Course "Scanning Electron Microscopy in Forensic Science", First presented to the Mid-Western Association of Forensic Scientists, Cincinnati, OH, May 5-7, 1999

National Tour Speaker (*invited*) Microbeam Analysis Society of America (MAS), 1998-1999

Journal Editorial Review Board Member (*invited*) **SCANNING – The Journal of Scanning Microscopies**, Foundation for Advances in Medicine and Science and John Wiley & Sons, 1994 - 2016

**INVITED CHAIRMANSHIPS:**

***Microscopy Society of the Ohio River Valley (MSORV):***

Co-Chair (invited) and Host, Spring Meeting of the Microscopy Society of the Ohio River Valley, FCC, Cincinnati, OH, April 15, 2015

Co-Chair (invited) and Host, Spring Meeting of the Microscopy Society of the Ohio River Valley, FCC, Cincinnati, OH, April 30, 2011

Co-Chair (invited) and Host, Spring Meeting of the Microscopy Society of the Ohio River Valley, FCC, Cincinnati, OH, April 30, 1999

***Microscopy Society of America (MSA):***

Co-Chairman (*Invited*), Organizer "Microscopy and Analysis in Forensic Science", Microscopy and Microanalysis 2016, July 24 – 28, 2016, Columbus, OH

Co-Chairman (*Invited*), Organizer "Applications of Microscopy in Forensic Science", Microscopy and Microanalysis 2010, August 1 -5, 2010, Portland, OR

Co-Chairman (*Invited*), Organizer "Applications of Microscopy in Forensic Science", Microscopy and Microanalysis 2009, July 26-30, 2009, Richmond, VA

National Tour Speaker (*invited*) Microscopy Society of America (MSA), 2007-2011

Co-Chairman (*Invited*), Organizer "Optical Microanalysis Symposium", Microscopy and Microanalysis '97, August 8-13, 1997, Cleveland, OH

MSA Annual Meeting Local Arrangements Committee, Cincinnati, Ohio, 1993

**INVITED CHAIRMANSHIPS: (continued)**

***Great Lakes Electron Microscopy Society (GLEMA):***

Chairman (*Invited*), "Forensic Science Session", Great Lakes Electron Microscopy Affiliates (GLEMA) Regional Microscopy Conference, Medical College of Ohio, Toledo, Ohio October 12-14, 1995

***SCANNING International Meeting, Foundation for Advances in Medicine and Science***

Chairman (*Invited*), Organizer/Lecturer "Forensic Science Short Course", SCANNING - 1998 - 2008

Chairman (*Invited*), "Applications of Scanning Microscopy in Forensic Science" session, SCANNING - 1993 – 2008

***National Institute of Standards and Technology (NIST)    Invited participant, January, 2004***

National Nanotechnology Initiative (NNI) workshop on instrumentation and metrology for nanotechnology

***SPIE – SCANNING MICROSCOPY International Meeting:***

***SPIE – SCANNING MICROSCOPIES*** International Meeting, ***SCANNING MICROSCOPIES***

Co- Conference Chairman – 2014 – **2015**

Chairman (*Invited*), "Applications of Scanning Microscopy in Forensic Science" session, 2014 - 2015

***SPIE – DEFENSE, SECURITY and SENSING*** International Meeting, ***SCANNING MICROSCOPIES***

Co- Conference Chairman – 2011- 2013

Chairman (*Invited*), "Applications of Scanning Microscopy in Forensic Science" session, 2011- 2013

***SPIE – SCANNING MICROSCOPY*** 2009-2010

Co- Conference Chairman – 2008 - 2010

Chairman (*Invited*), Organizer/Lecturer "Forensic Science Short Course", SCANNING - 2008 - 2010

Chairman (*Invited*), "Applications of Scanning Microscopy in Forensic Science" session, SCANNING - 2008 – 2010

**PRESENTATIONS:**

1. "Applications of the FDA's Counterfeit Detection Device (CDx) to the Examination of Suspect Counterfeit Pharmaceutical Tablets and Packaging" **S. Frank Platek**, Nicola Ranieri and JaCinta Batson, Pharmaceutical Symposium, Microscopy and Microanalysis 2016, Columbus, OH, July 26, 2016, (invited)
2. "Determination of Needle Size Based on Measurements of Punctures in Pharmaceutical Vial Stoppers" Stefanie L. Heckman and **S. Frank Platek**, Microscopy and Analysis in Forensic Science Symposium, Microscopy and Microanalysis 2016, Columbus, OH, July 27, 2016.
3. "Application of 3D and 2D Imaging Techniques in the Examination of Suspect Tablets for the Detection of Counterfeit FDA-Regulated Products", Nicola Ranieri, **S. Frank Platek** and JaCinta S. Batson, Microscopy and Analysis in Forensic Science Symposium, Microscopy and Microanalysis 2016, Columbus, OH, July 27, 2016.
4. "Applications of Light and Electron Microscopy with Complimentary Spectrometric Analyses of Forensic Cases at the US FDA", **S. Frank Platek**, (invited) Murray State University, Murray, KY, February 26, 2016.
5. "The Detection of Bleach Sodium in Dialysis Blood Lines and Syringes (Hypochlorite) in a Serial-Murder Investigation", David S. Jackson, John B. Crowe, and **S. Frank Platek**. The American Academy of Forensic Science (poster), Annual Meeting Las Vegas, NV, February 24, 2016.
6. "The Use of Commercial Reference Materials Including the NIST Reference Material (RM) 8820 SEM Artifact for SEM Calibrations in Forensic Laboratories", **S. Frank Platek** (USFDA), Michael T. Postek (NIST), András E. Vladár (NIST) and Stefanie L. Heckman (USFDA) Presented in the Applications of Scanning Microscopy in Forensic Science Session at the SPIE – SCANNING MICROSCOPIES 2015 International Meeting, Monterey, CA, September 30, 2015
7. "Applications of Light and Electron Microscopy to Forensic Casework at the US FDA" **S. Frank Platek**, Douglas C. Albright, JaCinta S. Batson, John B. Crowe, Moseley Fulcher, Stefanie L. Kremer-Heckman, Adam C. Lanzarotta, Nicola Ranieri and Mark R. Witkowski. Spring Meeting of the Microscopy Society of the Ohio River Valley (MSORV), Cincinnati, OH, April 15, 2015.
8. "Balancing Research and Instruction: Using Examples of Multidiscipline Analysis of FDA-Regulated Products by the Forensic Chemistry Center" **S. Frank Platek**, University of Kentucky, College of Medicine, November 12, 2014 (invited)

**PRESENTATIONS:** (continued)

9. "The Determination of Hypodermic Needle Gauge Punctures in Pharmaceutical Vial Stoppers by Light and Scanning Electron Microscopy: A Preliminary Study", **S. Frank Platek** and Stefanie L. Kremer, SPIE – Scanning Microscopies 2014, Monterey, CA, September 17, 2014 (invited)
10. "Scanning Microscopies in Forensic Science: Classic and New Applications", **S. Frank Platek**, Mark R. Witkowski, Nicola Ranieri, John B. Crowe, Adam C. Lanzarotta, Douglas C. Albright, SPIE – Defense, Security and Sensing 2011, Scanning Microscopies Plenary Presentation, Orlando, FL, May 24, 2011 (invited)
11. "The Use of SEM/EDS and FT-IR Analyses in the Identification of Counterfeit Pharmaceutical Packaging" **S. Frank Platek**, Sara E. Andria, Moseley Fulcher and Mark R. Witkowski; American Academy of Forensic Sciences Annual Meeting, Criminalistics Session II, Chicago, IL, February 25, 2011
12. "Application of 2D and 3D Optical Microscopy in the Examination of Suspect Counterfeit Pharmaceutical Tablets" **S. Frank Platek**, Nicola Ranieri, Douglas C Albright and Mark R. Witkowski; Microscopy and Microanalysis 2010, Portland, OR, August 2, 2010. (Invited)
13. "Preparation of Samples for Forensic Analysis by Scanning Electron Microscopy / Energy Dispersive X-ray Analysis", **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING MICROSCOPY 2010 International Meeting, Monterey, CA, May 17-18, 2010 (*Invited*)
14. "Trace Examination Techniques and Their Use in Pharmaceutical Forensics" Mark Witkowski, Douglas Albright, JaCinta Batson, John Crowe, Moseley Fulcher, Adam Lanzarotta, Sara Adrian, **Frank Platek**, Nicola Ranieri. Pharmaceutical Forensics, Forensic Molecular Spectroscopy Microscopy. Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) - 36th FACSS Marriott Hotel in Louisville, KY, October 20, 2009.
15. "Applications of Microscopy and Microanalysis in US FDA Forensic Cases" **S. Frank Platek**, John B. Crowe, Nicola Ranieri and Mark Witkowski, Microscopy and Microanalysis 2009, Richmond, VA, July 29, 2009. (*Invited*)
16. "Preparation of Samples for Forensic Analysis by Scanning Electron Microscopy / Energy Dispersive X-ray Analysis". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING MICROSCOPY 2009 International Meeting, Monterey, CA, May 6, 2009 (*Invited*)
17. "Belize Punches and Tablets Analysis" Nicola Ranieri, **S. Frank Platek**, and John B. Crowe presented to the Drug Enforcement Administration Special Testing Laboratory (DEA) in Dulles, VA, scientific collaboration meeting, May 5-6, 2009. (*Invited*)
18. "Light and Scanning Electron Microscopy Applications and Research in Forensic Science at the US FDA's Forensic Chemistry Center" **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to the Indiana Microscopy Society - Spring Meeting, Ball State University, Muncie, IN, March 27, 2009. (*Invited*)
19. "Light and SEM Applications and Research in Forensic Science at the US FDA's Forensic Chemistry Center". **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to the Central States Microscopy and Microanalysis Society Meeting, Hosted by the EM Core at the College of Veterinary Medicine, Missouri University, Columbia, MO, April 25, 2008. (*Invited*)
20. "Preparation of Samples for Forensic Analysis by Scanning Electron Microscopy / Energy Dispersive X-ray Analysis". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING 2008 International Meeting, NIST, Gaithersburg, MD, April 5, 2008 (*Invited*)
21. "Forensic Microscopy Case Studies from the US FDA's Forensic Chemistry Center". **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to the US FDA CFSAN Seafood Laboratory, Dauphin Island, Alabama, November 1, 2007. (*Invited*)

**PRESENTATIONS:** (continued)

22. "Forensic Microscopy Case Studies from the US FDA's Forensic Chemistry Center". **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to the Microscopy Society of the Ohio River Valley, General Electric Aviation, The Learning Centre, Cincinnati, OH, October 11, 2007. *(Invited)*
23. "Forensic Microscopy Case Studies and Research at the US FDA's Forensic Chemistry Center". S. Frank Platek, Presented at the Central Regional Meeting of the American Chemical Society - CERMACS 2007 Northern Kentucky Convention Center, Covington, KY, May 21, 2007 *(invited)*
24. "Preparation of Samples for Forensic Analysis by Scanning Electron Microscopy / Energy Dispersive X-ray Analysis". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING 2007 International Meeting, Monterey, CA, April 10, 2007 *(Invited)*
25. "Forensic Microscopy Case Studies from the US FDA's Forensic Chemistry Center". **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to the Microscopy Society of Northern Ohio, MetroHealth Medical Center, Cleveland, OH, March 15, 2007. *(Invited)*
26. "Forensic Microscopy Case Studies from the US FDA's Forensic Chemistry Center". **S. Frank Platek**, Nicola Ranieri and John B. Crowe. Presented to Marshall University Forensic Science Program and West Virginia State Police Laboratory, Marshall University, Huntington, WV, November 3, 2006. *(Invited)*
27. "Preparation of Samples for Forensic Analysis by Scanning Electron Microscopy / Energy Dispersive X-ray Analysis". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING 2006 International Meeting, Washington, D.C., April 26, 2006 *(Invited)*
28. "Particle Analysis in Forensic Science". **S. Frank Platek**, John B. Crowe and Nicola Ranieri. Presented to the National Institute of Standards and Technology (NIST) Particle Workshop, NIST Headquarters, Gaithersburg, MD. March 24, 2006. *(Invited)*
29. "The Role of Adhesive and Label Chemical Analysis in Cases of Suspected Counterfeit and Diverted Products". M.R. Witkowski, J. Crowe, N. Ranieri, A. Lanzarotta, F. Platek, J. Raezer, and J. Batson, Pittsburgh Conference Orlando, Florida, March 2006
30. "Forensic Case Studies from the US FDA's Forensic Chemistry Center". **S. Frank Platek**, John B. Crowe, Nicola Ranieri and Mark Witkowski. Presented to the University of Rhode Island Chemistry Department, Sensors and Surfaces Technology Partnership and the Rhode Island State Crime Laboratory, November 18, 2005. *(Invited)*
31. Introduction to SEM/EDX for Forensic Scientists Workshop (2 presentations) "Preparation for SEM/EDS Analyses" & "Applications of SEM/EDS to the Investigation and Identification of Complex Unknowns in the FDA laboratory" Presented to the Mid-Western Association of Forensic Science, Midwest Forensics Resources Center, Iowa State University, Ames, IA, April 25-29, 2005 *(Invited)*
32. "Scanning Electron Microscopy / Energy Dispersive X-ray Analysis Related to Food and Pharmaceutical Tampering and Counterfeiting". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING 2005 International Meeting, Monterey, CA, April 5, 2005 *(Invited)*
33. "Forensic Investigations: The Unknown Tampering Sample", **S. F. Platek**, Workshop Training Presented at the AOAC International Pacific Northwest Annual Meeting, Tacoma, WA, June 24, 2004 *(Invited presentation)*
34. "Forensic Investigations Related to Foods and Pharmaceutical Tampering and Counterfeiting", **S. F. Platek**, Presented Keynote Address at the AOAC International Pacific Northwest Annual Meeting, Tacoma, WA, June 24, 2004 *(Invited presentation)*
35. "Forensic Investigations Related to Foods and Pharmaceutical Tampering and Counterfeiting", **S. F. Platek**, Presented to the Alaska State Crime Laboratory, Anchorage, AK, June 15, 2004 *(Invited presentation)*

**PRESENTATIONS:** (continued)

36. "Scanning Electron Microscopy / Energy Dispersive X-ray Analysis Related to Food and Pharmaceutical Tampering and Counterfeiting ". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, SCANNING 2004 International Meeting, Washington, D.C., April 27, 2004 (*Invited – Co-instructor*)
37. "Detection of Counterfeit Product Labels Using Low Vacuum Scanning Electron Microscopy", N. Ranieri, **S. F. Platek** and J.B. Crowe, Modern Microscopy / SCANNING 2003 International Meeting, San Diego, CA, May 3-5, 2003 (*Poster presentation*)
38. "Scanning Electron Microscopy / Energy Dispersive X-ray Analysis Related to Food and Pharmaceutical Tampering and Counterfeiting ". **S. Frank Platek**, Scanning Microscopy in Forensic Science Short Course, Modern Microscopy / SCANNING 2003 International Meeting, San Diego, CA, May 3-5, 2003 (*Invited – Co-instructor*)
39. "Forensic Investigations Related to Food and Pharmaceutical Tampering and Counterfeiting". **S. Frank Platek** Presented at the 2003 FDA SCIENCE FORUM, Washington, D.C., April 24-25, 2003 (*Invited - Plenary speaker*)
40. "Forensic Microscopy Analyses of Food, Beverage and Pharmaceutical Products Related to Suspected Tampering and Counterfeiting". **S. Frank Platek**, Spring Banquet of the Joint Sigma Xi Chapters of Thomas More College and Northern Kentucky University, Presented at Thomas More College, April 14, 2003. (*Invited - Keynote speaker*)
41. "Classification of Puncture Holes by Light and Scanning Electron Microscopy". **S.F. Platek**, N.Ranieri, J.B. Crowe, Fall Meeting of Beta Beta Beta Biological Honor Society, Presented at Northern Kentucky University, Highland Heights, KY, November 1, 2001. (*Invited - Keynote speaker – presentation given by N. Ranieri*)
42. "Tampering and Contamination" **S.F. Platek**, Lecture presented to the Clinical Toxicology course at the University of Cincinnati College of Pharmacy, Health Care Research Center, Cincinnati, Ohio August 14, 2001.
43. "Classification of Puncture Holes in Plastic Bottles by Light and Scanning Electron Microscopy". **S.F. Platek**, N.Ranieri, J.B. Crowe and K. A. Wolnik, Poster presented at the FDA sponsored, 2001 FDA Science Forum "Science Across the Boundaries", Washington, D.C., February 15-16, 2001.
44. "Use of Scanning Electron Microscopy in Forensic Science", **S.F. Platek**, 12th Annual Assembly and Scientific Meeting for Police Physicians in Pecs, Hungary, August , 2000 (*Invited ... declined due to travel funding*)
45. Classification of Puncture Holes in Plastic Bottles by Light and Scanning Electron Microscopy: A Preliminary Study". **S.F. Platek**, N. Ranieri, J.B. Crowe and K. A. Wolnik, Presented at the Twelfth International Meeting of SCANNING 2000, Applications of Scanning Microscopy in Forensic Science Symposium, San Antonio, TX, May 10-11, 2000. (*Invited*)
46. "Malicious Tampering of Food Products". **S.F. Platek**, J.B. Crowe and N. Ranieri Presented at the Twelfth International Meeting of SCANNING 2000, Food Contaminants Short Course, San Antonio, TX, May 9, 2000. (*Invited*)
47. "Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting". **S. F. Platek**, Presented to the University of Rhode Island and the Sensors and Surfaces Technology Partnership and the Rhode Island State Crime Laboratory, September 24, 1999. (*Invited – Keynote speaker*)
48. "Microscopy and Forensic Science". **S. Frank Platek**, Presented to the Governor's Scholars Program 1999 participants, Northern Kentucky University, Highland Heights, KY, July 14,1999. (*Invited*)
49. "Scanning Electron Microscopy / Energy Dispersive X-ray Analysis in Forensic Science Workshop". **S. Frank Platek** and Dennis C. Ward, Joint FBI/FDA Forensic Workshop Presented to the Mid-Western Association of Forensic Scientists, Hamilton County (Ohio) Coroner's Office, Cincinnati, OH, May 5-7, 1999 (*Invited – Co-instructor*)

**PRESENTATIONS:** (continued)

50. Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting". **S. F. Platek**, Presented to Arizona Imaging and Microbeam Society, Tucson, AZ, March 11, 1999. *(Invited – Keynote speaker)*
51. "Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting". **S. F. Platek**, Presented to New Mexico Microbeam Users Group, Albuquerque, NM, March 10, 1999. *(Invited – Keynote speaker)*
52. "Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting" **S. F. Platek**, Presented to the Instrumentation and Analysis, Pittsburgh, PA, November 19, 1998. *(Invited – Keynote speaker)*
53. "Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting". **S.F. Platek**, Fall Meeting of Beta Beta Beta Biological Honor Society, Presented at Northern Kentucky University, Highland Heights, KY, October 28, 1998. *(Invited - Keynote speaker)*
54. "Applications of SEM/EDX to Forensic Cases and Research Related to Food Product and Pharmaceutical Tampering and Counterfeiting". **S.F. Platek**, Presented at the Spring Meeting of the Microscopy Society of the Ohio River Valley, The Ohio State University, Columbus, OH, April 24, 1998. *(Invited - Keynote speaker)*
55. "Forensic Microscopy Related to Product Tampering and Counterfeiting". **S.F. Platek**, Presented at the Fall Meeting of the Microscopy Society of Northeastern Ohio, Case Western Reserve University, Cleveland, OH, November 6, 1997. *(Invited - Keynote speaker)*
56. "Microscopy in Forensic Science". **S.F. Platek**, Fall Meeting of Beta Beta Beta Biological Honor Society, Presented at Northern Kentucky University, Highland Heights, KY, October 30, 1997. *(Invited - Keynote speaker)*
57. "Metal Corrosion Analysis by SEM/EDX Related to Carbonated Beverage Tampering". **S.F. Platek**, N. Ranieri, J.B. Crowe and K.A. Wolnik, Presented at INTER/MICRO-97, Chicago, IL, July 21-24, 1997. *(Invited)*
58. "Multiple Microscopy Analysis of Trace Evidence and Research Related to Food and Pharmaceutical Tampering and Fraud". **S.F. Platek**, N. Ranieri, J.B. Crowe and K.A. Wolnik, Presented at the Eighth International Meeting of SCANNING 97, Applications of Scanning Microscopy in Forensic Science, Monterey, CA, April 19-22, 1997. *(Invited)*
59. "Microscopic Analysis of Selected Cases Involving Product Tampering and Pharmaceutical Counterfeiting". **S. F. Platek**, N. Ranieri and J.B Crowe, University of Cincinnati, College of Pharmacy, Cincinnati, Ohio, November 1, 1996 *(Invited)*
60. "Investigation of Tampering and Diversion". **S.F. Platek**, N. Ranieri, J.B. Crowe and K.A. Wolnik. Presented at the Southern Ohio Regional Poison Control System's Regional Toxicology Conference, University of Cincinnati Medical Center, Cincinnati, OH, April 27, 1996. *(Invited)*
61. "Forensic Microscopy Analysis of Unique Cases Related to Food and Pharmaceutical Tampering and Counterfeiting" **S.F. Platek**, J.B. Crowe, N. Ranieri and K.A. Wolnik, Presented at the Seventh International Meeting of SCANNING 96, Applications of Scanning Microscopy in Forensic Science, Monterey, CA, April 11, 1996. *(Invited)*
62. "Microscopic Evidence of Ephedrine HCl; Identifying Sources of Manufacturers". J.B. Crowe, **S. Frank Platek**, Nicola Ranieri, Douglas T. Heitkemper and Karen A. Wolnik, 48<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, Nashville, TN February 22, 1996 (POSTER)
63. "The Mouse That Roared - A Case of Reported False Product Tampering". **S. F. Platek**, N. Ranieri and K. A. Wolnik, 48<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, Nashville, TN, February 22, 1996.

**PRESENTATIONS:** (continued)

64. "Analysis of Suspect Food and Beverage Product Tampering and Pharmaceutical Counterfeiting by Light Microscopy and SEM/EDX Analysis". **S. F. Platek**, N. Ranieri and K.A.Wolnik, University of Cincinnati, College of Pharmacy, Cincinnati, Ohio November 17, 1995 (*Invited*)
65. "Selected Topics Related to Analysis of Food and Beverage Product Tampering and Pharmaceutical Counterfeiting by Light Microscopy and SEM/EDX Analysis". **S. F. Platek**, N. Ranieri and K. A. Wolnik, University of Cincinnati, College of Medicine, Cincinnati, Ohio October 17, 1995 (*Invited*)
66. "Analysis of Suspect Food and Beverage Product Tampering and Pharmaceutical Counterfeiting by Light Microscopy and SEM/EDX Analysis". **S. F. Platek**, N. Ranieri and K. A. Wolnik, The Great Lakes Microscopy Conference 1995, GLeMA'95, October 12-14, 1995. (*Invited*)
67. "Microscopic and Inorganic Chemical Analysis (by EDXA) of Trace Evidence Related to Product Tampering and Pharmaceutical Counterfeiting". **S. Frank Platek**. Chemistry in Academic Science Course, Miami University, Oxford, OH, July 28, 1995. (*Invited*)
68. "Forensic Scanning Electron Microscopy/Energy Dispersive X-ray Analysis Related to Pharmaceutical Tampering and Counterfeiting. **S.F. Platek** and K.A. Wolnik. Presented at the Cincinnati College of Pharmacy's, RHO CHI Honors Meeting, Cincinnati, OH, April 12, 1995. (*Invited - Keynote speaker, unable to attend, presented by K.A. Wolnik*)
69. "Forensic Scanning Electron Microscopy/Energy Dispersive X-ray Analysis Related to Food Product Tampering and Pharmaceutical Counterfeiting. **S.F. Platek**, N. Ranieri and K.A.Wolnik. Presented at the Sixth International Meeting of SCANNING 95, Applications of Scanning Microscopy in Forensic Science, Monterey, CA, March 30, 1995 (*Invited*)
70. "The National Forensic Chemistry Center: Forensic Scanning Electron Microscopy of Samples Associated with Product Tampering, Counterfeiting and Fraud. **S. F. Platek**. Presented at the Winter Meeting of the CDIC - Federation of Societies for Coatings Technology, Cincinnati, OH, January 9, 1995. (*Invited*)
71. "Forensic Scanning Electron Microscopy and Energy Dispersive X-ray Analysis of Samples Associated with the Pepsi "Tamperings" of 1993. **S. F. Platek**, N. Ranieri and K. A. Wolnik. Presented at the Annual Meeting of the Central Section Association of Official Analytical Chemists, Lexington, KY, October 24, 1994.
72. "Food and Drug Tampering: Forensic Analysis". **S. F. Platek**. Presented at the October Meeting of the American Chemical Society, Cincinnati Section, Springdale, OH. October 12, 1994 (*Invited - Keynote speaker*)
73. "Use of the Scanning Electron Microscope in Food and Drug Forensics". **S. F. Platek**, N. Ranieri. Presented at the Mid- Western LEICA User's Conference, Toledo, OH, August 10, 1994. (*Invited*)
74. "Forensic Scanning Electron Microscopy Related to the Pepsi "Tampering" of 1993 (and Related Food and Drug Samples)". **S. F. Platek**, N. Ranieri and K. A. Wolnik. Presented at the Sixth International Meeting of SCANNING 94, Applications of Scanning Microscopy in Forensic Science, Charleston, SC, May 19, 1994. (*Invited*)
75. "Food and Drug Forensics". **S.F. Platek**, Presented at Murray State University, Department of Chemistry, Murray, KY, October 25, 1993. (*Invited*)
76. "Food and Drug Forensics: Tampering, Counterfeiting and Fraud". **S. F. Platek** and K.A. Wolnik. Presented at the Fifth International Meeting of SCANNING 93, Applications of Scanning Microscopy in Forensic Science, Orlando, FL, April 21, 1993. (*Invited*)
77. "Interlaboratory Comparison of Non-Fibrous Particle Lung Burden Quantitation Techniques". J.L. Abraham, L.E. Stettler, B. Burnett, A. Hunt and **S.F. Platek**. Presented at the Seventh International Symposium on Inhaled Particles, Edinburgh, UK, September, 1991.

**PRESENTATIONS:** (continued)

78. "Lung Particulate Burdens of Subjects from the Cincinnati, Ohio Urban Area". L.E. Stettler, **S.F. Platek**, R.D. Riley, J.P. Mastin and S.D. Simon. Presented at the Scanning Microscopy International/1990 Meeting in Bethesda, MD, May 5-10, 1990.
79. "Inorganic Particles in Coal Miners' Lungs. L.E. Stettler, J.M. Tucker, R.D. Riley, **S.F. Platek**, J.P. Mastin, and F.H.Y. Green. Presented at the VIIth International Pneumoconiosis Conference, Pittsburgh, PA, August, 1988.
80. "Particle Contents of Urban Lungs--An Update". L.E. Stettler, **S.F. Platek**, R.D. Riley, D.H. Groth, and J.P. Mastin. Presented at the annual meeting of the Electron Microscopy Society of America and the Microbeam Analysis Society, Albuquerque, NM, August, 1986.
81. "Particle Contents of Human Lungs". L.E. Stettler, **S.F. Platek**, D.H. Groth, F.H.Y. Green, and V. Vallyathan. Presented at the annual meeting of the Electron Microscopy Society of America, Louisville, KY, August, 1985.
82. "Scanning and Transmission Electron Microscopy Applications in an Asbestos Inhalation Toxicology Study". **S. Frank Platek** and James S. Ferguson. Presented at INTER/MICRO-84, McCrone Research Institute, Chicago, IL, July 17, 1984.
83. "Lung Tumors in Rats Treated with Quartz by Intratracheal Instillation". D.H. Groth, L.E. Stettler, **S.F. Platek**, J.B. Lal, and J.R. Burg. Presented at the International Symposium on Silica, Silicosis, and Cancer, Chapel Hill, NC, April, 1984.
84. "Fibrogenic Effects and Chemical Characterization of Coal and Mineral Slags Used as Sand Substitutes". L.E. Stettler, D.H. Groth, **S.F. Platek**, and H.M. Donaldson. Presented at the 4th Annual Rocky Mountain Center for Occupational and Environmental Health Conference, Park City, UT, April, 1982.
85. "Automated Characterization of Particles Extracted from Human Lungs: Three Cases of Tungsten Carbide Exposure". L.E. Stettler, D.H. Groth, **S.F. Platek**. Presented at the 1982 Scanning Electron Microscopy Meeting in Anaheim, CA, April, 1982.
86. "Particle Analysis by Scanning Electron Microscopy-Energy Dispersive X-ray Analysis-Image Analysis". L.E. Stettler, **S.F. Platek**, and D.H. Groth. Presented at the International Symposium on Aerosols in the Mining and Industrial Work Environment in Minneapolis, MN, November, 1981.
87. "Physical and Chemical Analyses of Foundry Sands. L.E. Stettler, C.H. Gorski, **S.F. Platek**, M. Stoll, and R.W. Niemeier. Presented at the 85th American Foundryman's Society Casting Congress in Cincinnati, OH, April, 1981.
88. "Chronic Inhalation Study of Short (< 5.0  $\mu$ m) Asbestos Fibers". **S.F. Platek** and D.H. Groth. Presented at the First NCI/EPA/NIOSH Collaborative Workshop in Rockville, Maryland, May 7, 1980. Abstract published in Workshop Proceedings and Manuscript.

**INVITED BOOK CHAPTERS AND REVIEWS:**

Invited contributor of photographs and photomicrographs for "Handbook of Sample Preparation for Scanning Electron Microscopy and X-Ray Microanalysis 2009th Edition" by Patrick Echlin

Invited book review of "Scientific PhotoMACROgraphy" in SCANNING, 1996.

Invited book review of "Scientific PhotoMICROgraphy" in SCANNING, 1995.

Invited book chapter, "Particle Concentrations in Urban Lungs" in Microprobe Analysis in Medicine P. Ingram, J.D. Shelburne, V.L. Roggli, Eds. Hemisphere Publishing Corporation, New York, pp. 133-146, 1989

**INVITED BOOK CHAPTERS AND REVIEWS: (continued)**

Invited book chapter, "Particle Contents of Human Lungs" in Electron Microscopy in Forensic, Occupational, and Environmental Health Sciences S. Basu and J.R. Millette, Eds. Plenum Press, New York, pp. 217-225, 1986

Invited book chapter, "Fibrogenic Effects and Chemical Characterization of Coal and Mineral Slags Used as Sand Substitutes". In Health Issues Related to Metal and Nonmetallic Mining, W. Wagner, W.N. Rom, J.A. Merchant, Eds., Butterworth Publishers, Woburn, MA, pp. 135-160, 1983.

**TRAINING Provided to the US Food and Drug Administration:**

"Field Portable Instrumentation for Counterfeit/Diverted Pharmaceutical Detection - CD3+" for FDA IM 214 – Use of Counterfeit Detection Device CDx for FDA Regulated Products course, Cincinnati, OH Dates: 6/2-6/2014, **to present**

"Use of Counterfeit Detection Device on FDA Regulated Products" for FDA IM 116 – Import Operations and Entry Review Training, ORA-U, Rockville, MD Dates: 12/11/2013 and 2/12/2014

"Analytical Sample Problem Solving" to representatives of FDA analytical laboratories through the Division of Field Science, ORA, held in Cincinnati, OH, April, 2008

"Detection of suspected counterfeit drugs and packaging utilizing the ALS hand held device", "Detection of suspected counterfeit packaging utilizing a hand held microscope and a hand held LED light source" and "Printing Process Determination" to FDA Office of Criminal Investigation (OCI) agency, Alternate Light Source (ALS) Training, April 22 - 23, 2008

"Detection of suspected counterfeit drugs and packaging utilizing the ALS hand held device", "Detection of suspected counterfeit packaging utilizing a hand held microscope and a hand held LED light source", and "Printing Process Determination" to FDA Office of Criminal Investigation (OCI) agency, Alternate Light Source (ALS) Training, September 11-22, 2007

"X-Ray Fluorescence (XRF) Workshop for Investigators" for FDA LB-252, instructed July 13-16, 2010 at the San Francisco District Laboratory.

**Licenses and Certificates**

Qualified as an expert witness in microscopic analysis of particles, scanning electron microscopy and energy dispersive x-ray spectroscopy.

US FDA - Level I Analyst Certification, 1/10/05

**Courtroom / Testimony Experience**

Testified to trace evidence and optical microscopy analysis. 2012 –  
Provide expert witness testimony in the State (Texas) trial, the State of Texas vs Kimberly Saenz, - Felony Tampering / Homicide.

Testified to trace evidence and polarized and scanning electron microscopy analysis. 1996 –  
Provide expert witness testimony in the State (Indiana) trial, the State of Indiana vs Charles Cooper, - Homicide.

Testified to trace evidence, light and scanning electron microscopy analysis - 1994 –  
Provide expert witness testimony in the Federal trial, US vs. Nanci Walter - Felony Tampering

### **Patents Attained**

#### **US Patent #3:**

- i. Developed an enhanced multi-use hand held device for anti-counterfeiting, documents, currency, liquids, and other products. The device is currently in the patent pending phase.
- ii. Title: Device And Method For Detection Of Counterfeit Pharmaceuticals And/Or Other Packaging (claims the 3<sup>rd</sup> version):
  1. U.S. Patent Application Serial No.: 621110,090- Filing Date: January 30, 2015
  2. NIH Ref.: E-074-2015/0-US-01
  3. Locke Lord Ref.: 97063P(47992) Immediate Lineage: N/A
  4. Inventors: Nicola Ranieri et al.
  5. Title: Device And Method For Detection Of Counterfeit Pharmaceuticals And/Or Other Packaging
  6. ABSTRACT OF THE DISCLOSURE: The device can be used in the detection of counterfeit pharmaceutical drugs, packaging and other forensic applications. The device has the potential to be used in a wide variety of other applications both in government and the private sector.
  7. Patent application submitted through National Institutes Of Health (NIH), Michael A. Shmilovich Sr. Licensing & Patenting Manager, 6011 Executive Blvd., Suite 323, Rockville, MD, 20852-3804

### **Membership in Professional Societies and Honorary Societies**

2015 – **PRESENT**; Elected Society Fellow - Microscopy Society of America (MSA)

2007-2011; National Tour Speaker – Microscopy Society of America (invited)

2000 – **PRESENT**; Member – Midwestern Association of Forensic Scientists (elected)

1999 – 2003; Charter member - International Association for Micro Analysis (IAMA)

1998-1999; National Tour Speaker - Microbeam Analysis Society (invited)

1994 – 2016; Member – Editorial Review Board, **SCANNING - The Journal for Scanning Microscopies**

1993 – **PRESENT**; Member - American Academy of Forensic Sciences (elected)

1985 – **PRESENT**; Member/- Microscopy Society of America (MSA)

1989 – **PRESENT**; Member - Microscopy Society of the Ohio River Valley (MSORV)

1984-1991; Member - **Sigma Xi** International Research Society – (invited)

### **Offices, Committee Assignments or Special Assignments Held in Professional and Honorary Societies**

Co-Chair and Organizer the "Microscopy and Analysis in Forensic Science" symposium for the joint Microscopy Society of America/Microbeam Analysis Society of America International Conference, July 24 - 28, 2016, Columbus, OH

Meeting Coordinator for the Microscopy Society of the Ohio River Valley Spring Meeting, 2015 in Cincinnati, OH

Co-Chair and Organizer the "Forensic Microscopy" symposium for the joint Microscopy Society of America/Microbeam Analysis Society of America International Conference, August 1-5, 2010, Portland, OR

Co-Chair and Organizer the "Forensic Microscopy" symposium for the joint Microscopy Society of America/Microbeam Analysis Society of America International Conference, July 26-31, 2009, Richmond, VA

Meeting Coordinator for the Electron Microscopy Society of the Ohio River Valley Spring Meeting, 1999 in Cincinnati, OH

Co-Chair and Biological Organizer the "Optical Microanalysis" symposium for the joint Microscopy Society of America/Microbeam Analysis Society of America International Conference, August, 1997, Cleveland, OH

Chairman, "Forensic Science Session", Great Lakes Electron Microscopy Affiliates (GLEMA) Regional Microscopy Conference, Medical College of Ohio; Toledo, Ohio, October 12-14, 1995.

**Offices, Committee Assignments or Special Assignments Held in Professional and Honorary Societies (continued)**

Member, Program/Special Events/Activities Committee for the 1993 Microscopy Society of America Annual Meeting, August, 1993 in Cincinnati, OH

Member, Advance Information Committee for the 1992 Microscopy Society of America Annual Meeting, August, 1992 in Boston, MA

Meeting Chairman for the Electron Microscopy Society of the Ohio River Valley Spring Meeting, 1990 in Cincinnati, OH

**Participation in National/International Scientific Meetings, Technical Conferences, Workshops, Seminars, Etc.**

**SCANNING MICROSCOPY – SPIE International Meeting**

2009 - 2015 Scanning Microscopies Symposium Co-chair and chair of Forensic Science Symposia  
2009 – 2011 Chaired and instructed Forensic Short Course

**SCANNING (Microscopy) Annual International Meeting – Foundation for Advances in Medicine and Science**

1993 - 2015 Attended, presented a scientific paper and chaired Forensic Science Sessions  
1998 - 2008 Chaired and instructed Forensic Short Course

**American Academy of Forensic Sciences (AAFS)**

2011- Chicago, IL, Attended and presented scientific paper "The Use of SEM/EDS and FT-IR Analyses in the Identification of Counterfeit Pharmaceutical Packaging"  
1996 - Nashville, TN, Attended and presented scientific paper "The Mouse That Roared - A Case of Reported False Product Tampering" and co-presented poster "Microscopic Evidence of Ephedrine HCl; Identifying Sources Manufacturers"

**International Symposium on the Forensic Aspects of Trace Evidence - US Dept. of Justice**

1991 - Federal Bureau of Investigation, Forensic Science Research and Training Center, FBI Academy, Quantico, VA

**Midwestern Association of Forensic Sciences (MAFS) - Training Course Developer and Instructor**

2005 - Midwest Forensics Resources Center, Iowa State University, Ames, IA, May 25-29, 2005  
Introduction to SEM/EDX for Forensic Scientists Workshop (2 presentations)  
"Preparation for SEM/EDS Analyses" & "Applications of SEM/EDS to the Investigation and Identification of Complex Unknowns in the FDA laboratory" (Invited)  
1999 - Hamilton County (Ohio) Coroner's Office, Cincinnati, OH, May 5-7, 1999  
"Scanning Electron Microscopy / Energy Dispersive X-ray Analysis in Forensic Science Workshop".  
Joint FBI/FDA Forensic Workshop Presented to the Mid-Western Association of Forensic Science (Invited)

**Participation in National/International Scientific Meetings, Technical Conferences, Workshops, Seminars, Etc. (continued)**

**Microscopy Society of America - MSA** Microscopy and Microanalysis International Meeting  
[Formerly Electron Microscopy Society of America – (EMSA)]

2016 - Co-Chairperson and Organizer (invited)

“Microscopy and Analysis in Forensic Microscopy” symposium at the *Microscopy and Microanalysis '16*

**2015 - Attended International Meeting- received Fellow of Society Award**

2014 - Attended International Meeting

2013 - Attended International Meeting

2010 - Co-Chairperson and Organizer (invited)

“Forensic Microscopy” symposium at the *Microscopy and Microanalysis '10*

2009 - Co-Chairperson and Organizer (invited)

“Forensic Microscopy” symposium at the *Microscopy and Microanalysis '09*

1997 - Co-Chairperson and Organizer (invited)

“Optical Microanalysis” symposium at the *Microscopy and Microanalysis '97*

1985, 1986, 1989, 1991, 1997, 2009, 2010, 2016 - Attended and presented scientific paper at International Meeting

**Great Lakes Electron Microscopy Affiliates (GLEMA) Meeting**

**1995**- Toledo, OH, Presented scientific paper and chaired Forensic Science Session

**Association of Official Analytical Chemists (AOAC) -**

2008 - Cincinnati, OH, Attended meeting and presented scientific paper (invited)

2004 - Seattle, WA, Attended, presented Keynote address and taught short course (invited)

1994 - Lexington, KY, Attended and presented scientific paper (invited)

1993 - Cincinnati, OH, Attended meeting

**NIOSH/EPA/NCI Collaborative Workshop**

1980 - Rockville, MD, Attended and presented scientific paper. Paper published in proceedings.

**Scanning Microscopy International**

1982, 1990 - Attended, presented scientific paper and/or co-authored scientific paper

**Seventh International Symposium on Inhaled Particles**

1991 - Edinburgh, UK, Co-authored scientific paper

**International Symposium on Aerosols in the Mining and Industrial Work Environment**

1981 - Minneapolis, MN, Co-authored presented scientific paper

**Annual Rocky Mountain Center for Occupational and Environmental Health Conference**

1982 - Park City, UT, Co-authored presented scientific paper

**International Symposium on Silica, Silicosis, and Cancer**

1984 - Chapel Hill, NC, Co-authored presented scientific paper

**American Foundryman's Society Casting Congress**

1981 - Cincinnati, OH, Co-authored presented scientific paper

**INTER/MICRO conference, McCrone Research Institute**

1984 - Chicago, IL, Co-authored presented scientific paper (*invited*)

1997 - Chicago, IL, Attended and presented scientific paper (*invited*)

**International Pneumoconiosis Conference**

1988 - Pittsburgh, PA, Co-authored presented scientific paper

**Outside Professional Advisory, Instructing and Consulting Activities**

2005 - **PRESENT** Faculty Instructor, Lehigh Microscopy School, Lehigh University, Bethlehem, PA (part-time)

1994 – 2006 Journal Editorial Review Board Member (*invited*)  
**SCANNING – The Journal of Scanning Microscopies**  
Foundation for Advances in Medicine and Science

2006 – 2016 Journal Editorial Review Board Member (*invited*)  
**SCANNING – The Journal of Scanning Microscopies**, John Wiley and Sons, Publisher

1982 - **PRESENT** Adjunct Instructor, Scanning Electron Microscopy, Northern Kentucky University, Department of Biological Sciences, Highland Heights, KY (part-time)

1979 - 1991 Field Instructor/Naturalist, Herpetology & Fresh Water Biology,  
Cincinnati Museum of Natural History - Edge-Of-Appalachia Preserve, Cincinnati, OH  
and Adams County, OH (part-time)

**FDA Special Assignment and Advisory Activities**

2012 - Provide expert witness testimony in the joint Federal & State trial, State of Texas vs. Kimberly Hopper Saenz – Homicide. Testified to trace evidence and microscopy analyses. Lufkin, Texas  
State of Texas vs. Kimberley Saenz (OCI Case #: 2008-HST-701-0344, Case Title: Kimberly Hopper Saenz)

2010 – **Present** US FDA, Co-Instructor and Instructor Cadre member for the use of hand-held X-Ray Fluorescence Spectrometry Instrumentation for investigators and laboratory analysts.

2002 - Acting Deputy Director, ORO Division of Emergency Operations, Rockville, MD (Detail 1/26/02-2/27/02)

1999 - Co-Instructor/Coordinator “**Scanning Electron Microscopy / Energy Dispersive X-ray Analysis in Forensic Science Workshop**”. Joint FBI/FDA Forensic Workshop, Three-day instruction given to the Mid-Western Association of Forensic Scientists, Hamilton County (OH) Coroner’s Office, Cincinnati, OH, May 5-7,1999

1998 – 2005 Serving as industrial hygienist and safety member of the Forensic Chemistry Center’s Safety Committee.

1996 - Provide expert witness testimony in the State trial, the State of Indiana vs Charles Cooper, - Homicide. Testified to trace evidence and microscopy analyses. Vigo County Court House, Terra Haute, IN

1994 - Federal Laboratory's Image Processing Working Group (FLIPWIG), Washington, D.C., Nov. 10, 1994.  
Working Group Participant.

1994 – Provide expert witness testimony in the Federal trial, US vs. Nanci Walter – False report of product tampering and extortion. Testified to trace evidence and microscopy analysis. US District Court, White Plains, NY

1991 - An International Symposium on the Forensic Aspects of Trace Evidence - US Department of Justice, Federal Bureau of Investigation, Forensic Science Research and Training Center, FBI Academy, Quantico, VA.

## Referee/Reviewer - Scientific Journals

*Journal of Analytical Chemistry*

*Forensic Science Communications* (FBI's on-line Journal)

*SCANNING - The Journal of Scanning Microscopies*

*Journal of Forensic Sciences*

*Microscopy and Microanalysis*

## PUBLICATIONS

Sara E. Andria, **S. Frank Platek**, Moseley Fulcher, and Mark R. Witkowski. "The Use of SEM/EDS and FT-IR Analyses in the Identification of Counterfeit Pharmaceutical Packaging", Am Pharm Review 2012; April, Volume 15, Issue 3; pp. 62-65.

**S. Frank Platek**, Mark A. Keisler, Nicola Ranieri, Todd W. Reynolds, and John B. Crowe. "A Method for the Determination of Syringe Needle Punctures in Rubber Stoppers Using Stereoscopic Light Microscopy" J Forensic Sci 2002;47(5):986-992.

**S. F Platek**, J.B. Crowe and K.A. Wolnik, "Sampling Method for Extraneous Material in Injectable Veterinary Antibiotic Suspensions". DHHS, US PHS, Food and Drug Administration, Laboratory Information Bulletin, Volume 17, Number 7, JULY 2001 (Reference #4254)

**S. F. Platek**, J.B. Crowe, N. Ranieri and K.A. Wolnik. "Scanning Electron Microscopy Determination of String Mozzarella Cheese in Gastric Contents". J Forensic Sci 2001;46(1):131-134.

J.A. Tomlinson, J.B. Crowe, N. Ranieri, J.P. Kindig and **S. F. Platek**. " Supermarket Tampering: Cocaine in Syringes and in Fruit". J Forensic Sci 2001;46(1):144-146.

**S.F. Platek**, N. Ranieri, J.B. Crowe and K.A. Wolnik. "Classification of Puncture Holes in Plastic Bottles by Light and Scanning Electron Microscopy: A Preliminary Study" " Presented at the Twelfth International Meeting of SCANNING 2000, Food Contaminants Short Course, San Antonio, TX, May 9, 2000. (extended abstract)

**S.F. Platek**, J.B. Crowe and N. Ranieri. "Malicious Tampering of Food Products" Presented at the Twelfth International Meeting of SCANNING 2000, Food Contaminants Short Course, San Antonio, TX, May 9, 2000. (extended abstract)

**S. F. Platek**, N. Ranieri and K. A. Wolnik. "A False Report of Product Tampering Involving a Rodent and Soft Drink Can: Light Microscopy, Image Analysis and Scanning Electron Microscopy/Energy Dispersive X-ray Analysis". J Forensic Sci., Volume 42(6), November, pp. 1169-1173, 1997.

J.B. Crowe, B.S. Barnes, D.T. Heitkemper, **S. F. Platek** and K.A. Wolnik. " Further Investigation of Chromium Determination in Surgical Stainless Steel: Interfaces Noted for High-Carbon Steels.. DHHS, US PHS, Food and Drug Administration, Laboratory Information Bulletin, Volume 11, Number 11, November 1995. (Reference #3994)

**S.F. Platek**, J.B. Crowe, N. Ranieri and K.A. Wolnik. "Forensic Microscopy Analysis of Unique Cases Related to Food and Pharmaceutical Tampering and Counterfeiting". SCANNING, Volume 18, 3, April, pp. 175-176, 1996. (extended abstract)

**S.F. Platek**. *BOOK REVIEW* of Modern PhotoMICROgraphy, SCANNING, Vol. 18, No. 2, pp. 125, 1996.

**S. F. Platek**, N. Ranieri and K. A. Wolnik. "The Mouse That Roared - A Case of Reported False Product Tampering". 48<sup>th</sup> Proceedings of the Annual Meeting of the American Academy of Forensic Sciences, February 19-24, 1996. (abstract)

**PUBLICATIONS (continued)**

**S.F. Platek**, N. Ranieri and K.A. Wolnik. "Analysis of Suspect Food and Beverage Product Tampering and Pharmaceutical Counterfeiting by Light Microscopy and SEM/EDX Analysis". Proceedings of the Great Lakes Microscopy Conference 1995, GLeMA'95, October 12-14, 1995. (extended abstract)

**S.F. Platek**. *BOOK REVIEW* of Scientific PhotoMACROgraphy , SCANNING, Vol. 17, No. 4, pp. 263-264, 1995.

L.E. Stettler, R.A. Salomon, **S.F. Platek**, W.J. Moorman, J.C. Clark, E.F. Krieg, and F.P. Phipps. "Fibrogenic Potentials of Coal Slags Used as Abrasive Blasting Substitutes". J. Tox.Env. Health, 45; pp. 349-365, 1995.

D.T. Heitkemper, **S. F. Platek** and K.A. Wolnik. " Elemental and Microscopic Analysis in the 1993 Soft Drink/Syringe Product Tampering Incidents". J. Forensic Sci., Vol. 40, N0. 4, pp. 652-672, 1995.

**S.F. Platek**, N. Ranieri and K.A.Wolnik. "Forensic Scanning Electron Microscopy/Energy Dispersive X-ray Analysis Related to Food Product Tampering and Pharmaceutical Counterfeiting". Published in the proceedings of SCANNING, Volume 17, Supplement V, pp. 47-48, 1995.

J.L. Abraham, L.E. Stettler, B. Burnett, A. Hunt and **S.F. Platek**. "Interlaboratory Comparison of Non-Fibrous Particle Lung Burden Quantification Techniques". Ann. occup. Hyg. Vol. 38, Supplement 1, pp. 541-550, 1994.

**S. F. Platek** and K. A. Wolnik. "Forensic Scanning Electron Microscopy Related to the Pepsi® "Tampering" of 1993 (and Related Food and Drug Samples)". Published in the proceedings of SCANNING, Volume 16, Supplement IV, pp. 33-34, 1994.

**S. F. Platek** and K. A. Wolnik. "Food and Drug Forensics: Tampering, Counterfeiting and Fraud". Published in the proceedings of SCANNING, Volume 15, Supplemental III, pp. 10- 11, 1993.

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